

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-000941**Date Inspected:** 14-Nov-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 600**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Ye Yong Jun, Li Wen Sheng**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** CalTrans mock up**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Dan Hernandez was present to observe the fitup, welding and related activities associated with the fabricating of Caltrans Mock-ups 89.00 and 77.00 for the San Francisco Oakland Bay Self Anchored Suspension Bridge, at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

Item Description	WBS	Dwg No.	Status
1 89M Strut Plate Splice			In Progress
Caltrans QA Inspector observed Submerged Arc Welding (SAW) in progress of fill passes on strut plate splice weld, plate ma26-1 to p1115-1and p1114-4 to mp517-4. The weld joint is a Complete Joint Penetration (CJP) double bevel butt-joint in the 1G position. The approved welder Gu Caihong was using approved welding procedure specification WPS-B-T-4221-B-U3-5. Caltrans QA Inspector measured current welding parameters at approximately 580 amps, 29.5 volts and 470 millimeters per minute (mm/min) travel speed. Preheat and interpass temperatures were verified during welding activities. The preheat temperature prior to the start of welding measures more than 110 Celsius (230 degree Fahrenheit) but less than 232 Celsius (450 degrees Fahrenheit) during maximum interpass temperature verification. SAW welding consumable is identified as LA-85 ENT5 and MIL800-HPNI flux. ZPMC Quality Control (QC) Certified Welding Inspector (CWI) Mr. Ye Yong Jun and Bureau Veritas Inspector Mr. Zhang Xu Liang were observed monitoring welding activities at the work station.			
2 89M Skin plate D repair			In Progress
Caltrans QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of fill passes on excavated UT reject of skin plate D upper and lower splice. Excavation was approximately 45 mm deep and 120mm in length. The repair was performed in the 1G position by approved welder Li Shuoqiang # 053609 using approved welding procedure specification WPS-345-FCAW-1G. Caltrans QA Inspector measured current welding parameters at approximately 307 amps and 31.2 volts and 27 millimeters per minute (mm/min) travel speed. Preheat and interpass temperatures were			

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verified during welding activities. The preheat temperature prior to the start of welding measures more than 110 Celsius (230 degree Fahrenheit) but less than 232 Celsius (450 degrees Fahrenheit) during maximum interpass temperature verification. FCAW welding consumable is verified and identified as Supercored 71H, classification E71T-1, diameter 1.4 mm (.055 inches). ZPMC Quality Control (QC) Certified Welding Inspector (CWI) Mr. Ye Yong Jun and Bureau Veritas Inspector Mr. Zhang Xu Liang were observed monitoring welding activities at the work station.

### Summary of Conversations:

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Hernandez,Dan	Quality Assurance Inspector
<b>Reviewed By:</b>	Cuellar,Robert	QA Reviewer

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